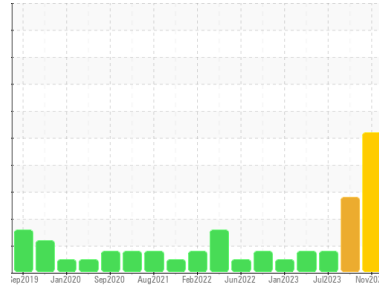




PROBLEM SUMMARY

Sample Rating Trend

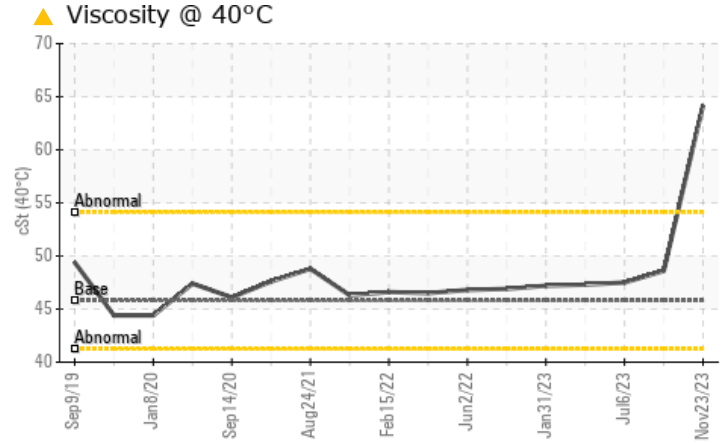
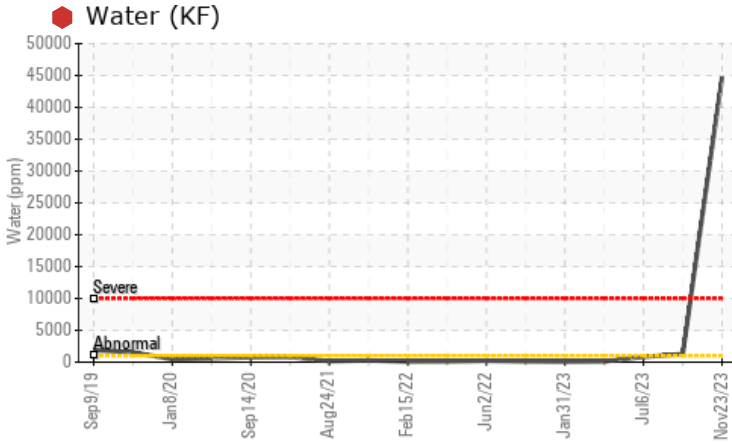


WATER



Area
[40HP]
 Machine Id
INGERSOLL RAND R551-A-110 10900 (S/N VK3083U15061)
 Component
Air Compressor
 Fluid
USPI MAX FG AIR 46 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise an early resample to confirm this situation. NOTE: one of two samples received with same ID. 40 HP

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ATTENTION	ABNORMAL
Barium	ppm	ASTM D5185m	0	▲ 238	0	<1
Sulfur	ppm	ASTM D5185m	0	▲ 206	0	5
Water	%	ASTM D6304	>0.1	● 4.47	▲ 0.128	0.082
ppm Water	ppm	ASTM D6304	>1000	● 44700	▲ 1284	820
Silt	scalar	*Visual	NONE	▲ HEAVY	NONE	▲ MODER
Visc @ 40°C	cSt	ASTM D445	45.8	▲ 64.2	48.6	47.5

Customer Id: CARALBNEW
 Sample No.: USPM31345
 Lab Number: 06015784
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We advise an early resample to confirm this situation.
Alert	---	---	?	NOTE: one of two samples received with same ID and sampling date.

HISTORICAL DIAGNOSIS

13 Nov 2023 Diag: Doug Bogart

WATER



Resample at the next service interval to monitor. 75 HPAll component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



06 Jul 2023 Diag: Doug Bogart

SEDIMENT



We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. There is a moderate amount of visible silt present in the sample. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



07 Jun 2023 Diag: Doug Bogart

SEDIMENT



We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. There is a moderate amount of visible silt present in the sample. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

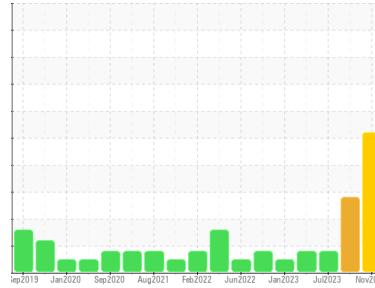
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Area
[40HP]
 Machine Id
INGERSOLL RAND R551-A-110 10900 (S/N VK3083U15061)
 Component
Air Compressor
 Fluid
USPI MAX FG AIR 46 (--- GAL)

DIAGNOSIS

Recommendation

We advise an early resample to confirm this situation. NOTE: one of two samples received with same ID. 40 HP

Wear

All component wear rates are normal.

Contamination

There is a high amount of visible silt present in the sample. There is a high concentration of water present in the oil.

Fluid Condition

The oil viscosity is higher than normal. This plus the additive levels indicates the addition of a different brand or type of oil. Confirmed. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		USPM31345	USPM31344	USPM27049
Sample Date	Client Info		23 Nov 2023	13 Nov 2023	06 Jul 2023
Machine Age	hrs	Client Info	62350	48354	46053
Oil Age	hrs	Client Info	57960	0	0
Oil Changed	Client Info		N/A	N/A	Changed
Sample Status			SEVERE	ATTENTION	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >70	0	0	0
Chromium	ppm	ASTM D5185m >15	0	0	0
Nickel	ppm	ASTM D5185m >6	0	0	<1
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	<1
Aluminum	ppm	ASTM D5185m >10	0	0	0
Lead	ppm	ASTM D5185m >20	0	0	0
Copper	ppm	ASTM D5185m >80	<1	<1	0
Tin	ppm	ASTM D5185m >15	<1	0	0
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	0
Barium	ppm	ASTM D5185m 0	▲ 238	0	<1
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 0	0	0	0
Calcium	ppm	ASTM D5185m 0	8	0	0
Phosphorus	ppm	ASTM D5185m 0	<1	0	1
Zinc	ppm	ASTM D5185m 0	5	0	0
Sulfur	ppm	ASTM D5185m 0	▲ 206	0	5

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >12	3	<1	<1
Sodium	ppm	ASTM D5185m	8	<1	0
Potassium	ppm	ASTM D5185m >20	1	0	<1
Water	%	ASTM D6304 >0.1	◆ 4.47	▲ 0.128	0.082
ppm Water	ppm	ASTM D6304 >1000	◆ 44700	▲ 1284	820

FLUID CLEANLINESS

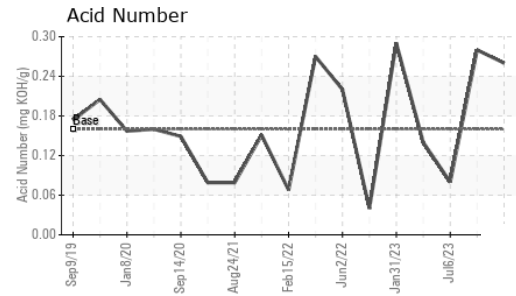
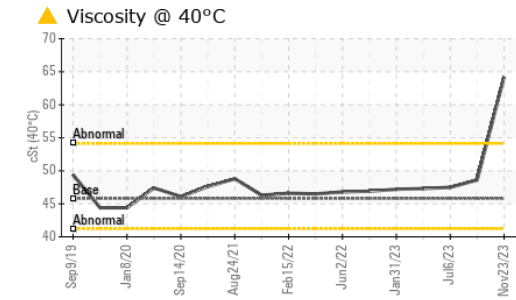
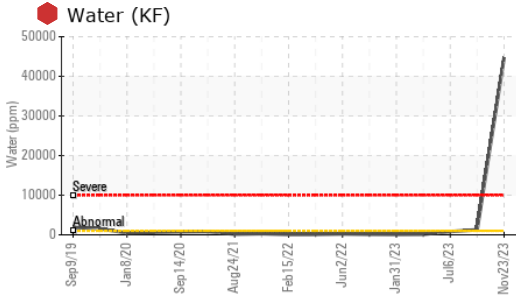
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	---	▲ 19992	---
Particles >6µm	ASTM D7647	>2500	---	▲ 2957	---
Particles >14µm	ASTM D7647	>320	---	180	---
Particles >21µm	ASTM D7647	>80	---	39	---
Particles >38µm	ASTM D7647	>20	---	1	---
Particles >71µm	ASTM D7647	>4	---	0	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	---	▲ 21/19/15	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.16	0.26	0.28	0.08



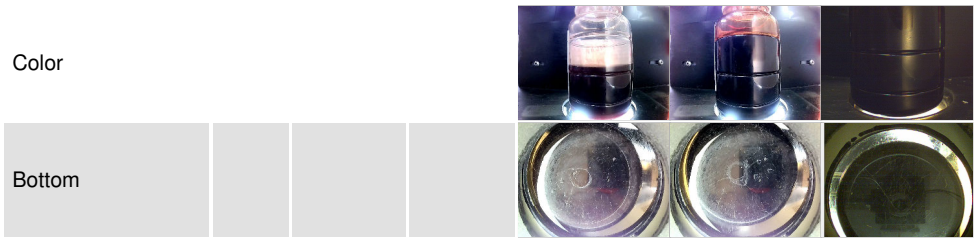
OIL ANALYSIS REPORT



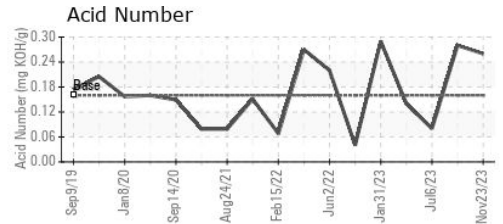
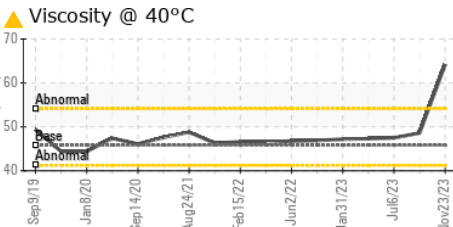
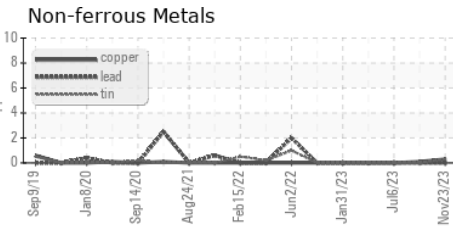
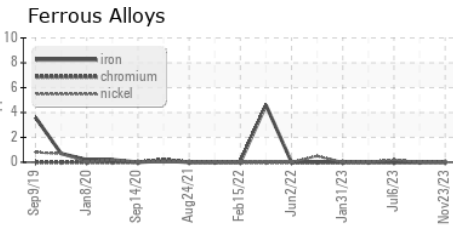
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	▲ HEAVY	▲ MODER
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	45.8	▲ 64.2	48.6	47.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM31345 **Received** : 22 Nov 2023
Lab Number : 06015784 **Diagnosed** : 08 Dec 2023
Unique Number : 10754928 **Diagnostician** : Doug Bogart
Test Package : IND 2

CARGILL ANIMAL NUTRITION
 200 KEAN ST
 ALBANY, NY
 US 12202
 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
F: